



PUGET SOUND ENERGY

The Energy To Do Great Things

DECEMBER 2006 WINDSTORM

***Communications Academy
March 31, 2007***

Mark Wesolowski
Dee Williamson



PUGET SOUND ENERGY
The Energy To Do Great Things

Discussion Topics

- ◆ Introductions
- ◆ Operations Continuity
- ◆ Puget Sound Energy Facts
- ◆ Fall/Winter Storm Recap
- ◆ Communications Plan Discussion

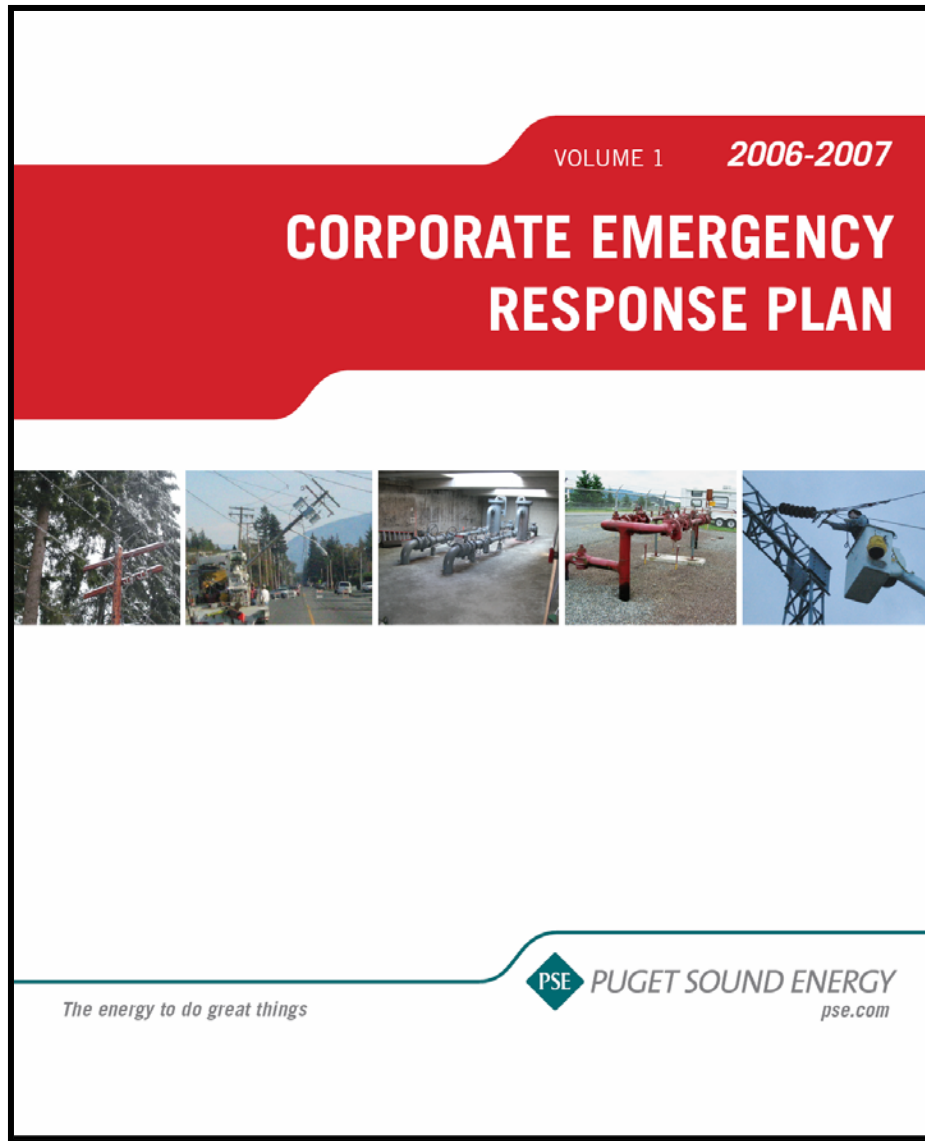
- ◆ Questions

Operations Continuity

- Operations Continuity
 - ◆ Business Units
- Emergency Planning
 - ◆ Energy Delivery Systems
- Infrastructure Security

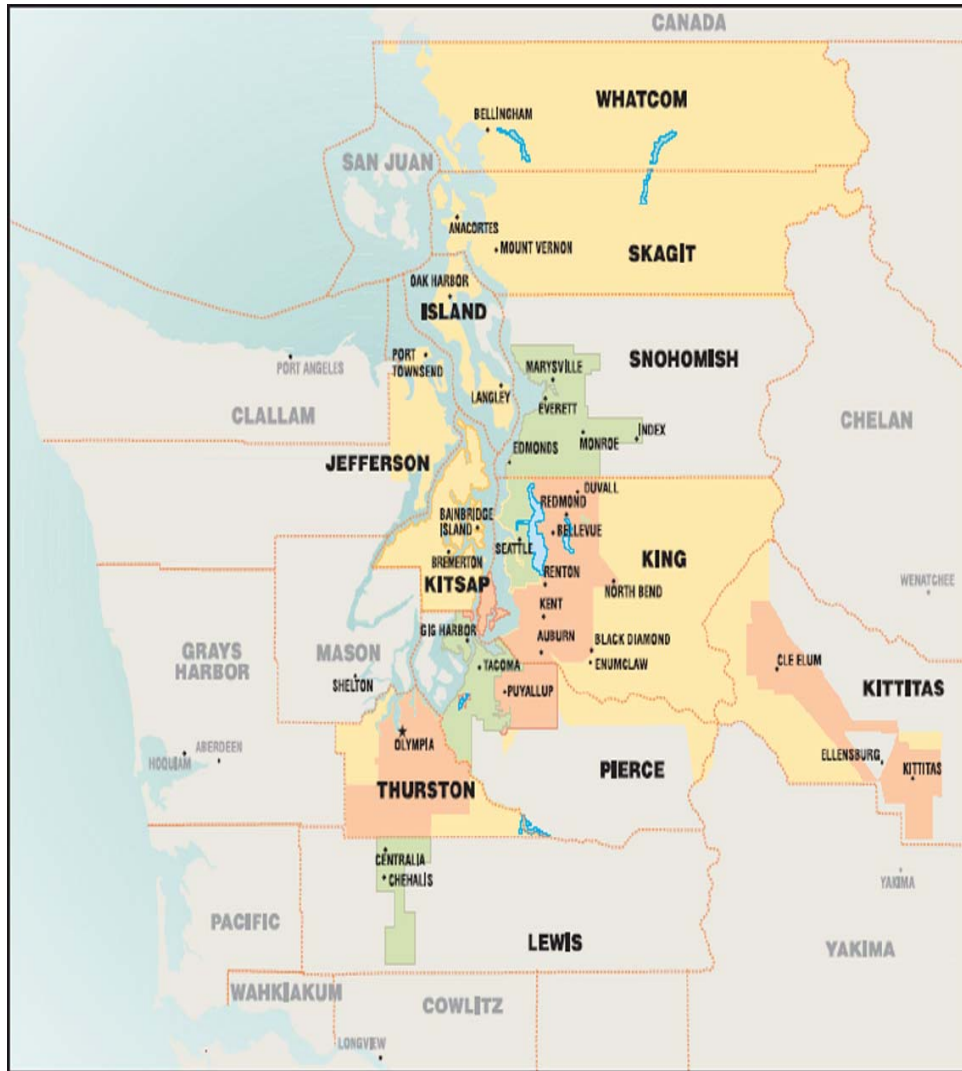


Emergency Response Plan



- System Restoration Plan
- Define Emergencies
- Plan Activation
- Concept of Operations
- Role Descriptions
- Key Systems / Communications
- Energy Emergencies

Puget Sound Energy



- 6,000 sq. miles
- 1.6 million electric/gas customers
 - ◆ 89.8% residential
- 11 counties
- 358 substations
- 40 gas gate stations
- 2,200 employees

Events Preceding the “Big One”

- **11/03** – Wind. 7 hrs. Kitsap, Whatcom, Skagit; 7,800 customers
- **11/10** – Wind. 21 hrs. Pierce, Thurston, Kitsap; 26,400 customers
- **11/13*** – Wind. 30 hrs. S.King, Pierce, Thurston; 45,000 customers
- **11/15*** – Wind. 4 days System-wide; 181,000 customers
- **11/19** – Wind. 16 hrs. Whatcom, Thurston; 10,350 customers

Continued...

- **11/26*** – Snow. 4 days All Areas Except King; 48,350 customers
- **12/11*** – Wind. 20 hrs. Whatcom, Skagit, Kitsap; 36,600 customers
- **12/13*** – Wind. 2 days King, Pierce, Thurston, Kitsap; 70,480 customers
- * = PSE's Emergency Operations Center Activated

December 14-15, 2007 Windstorm

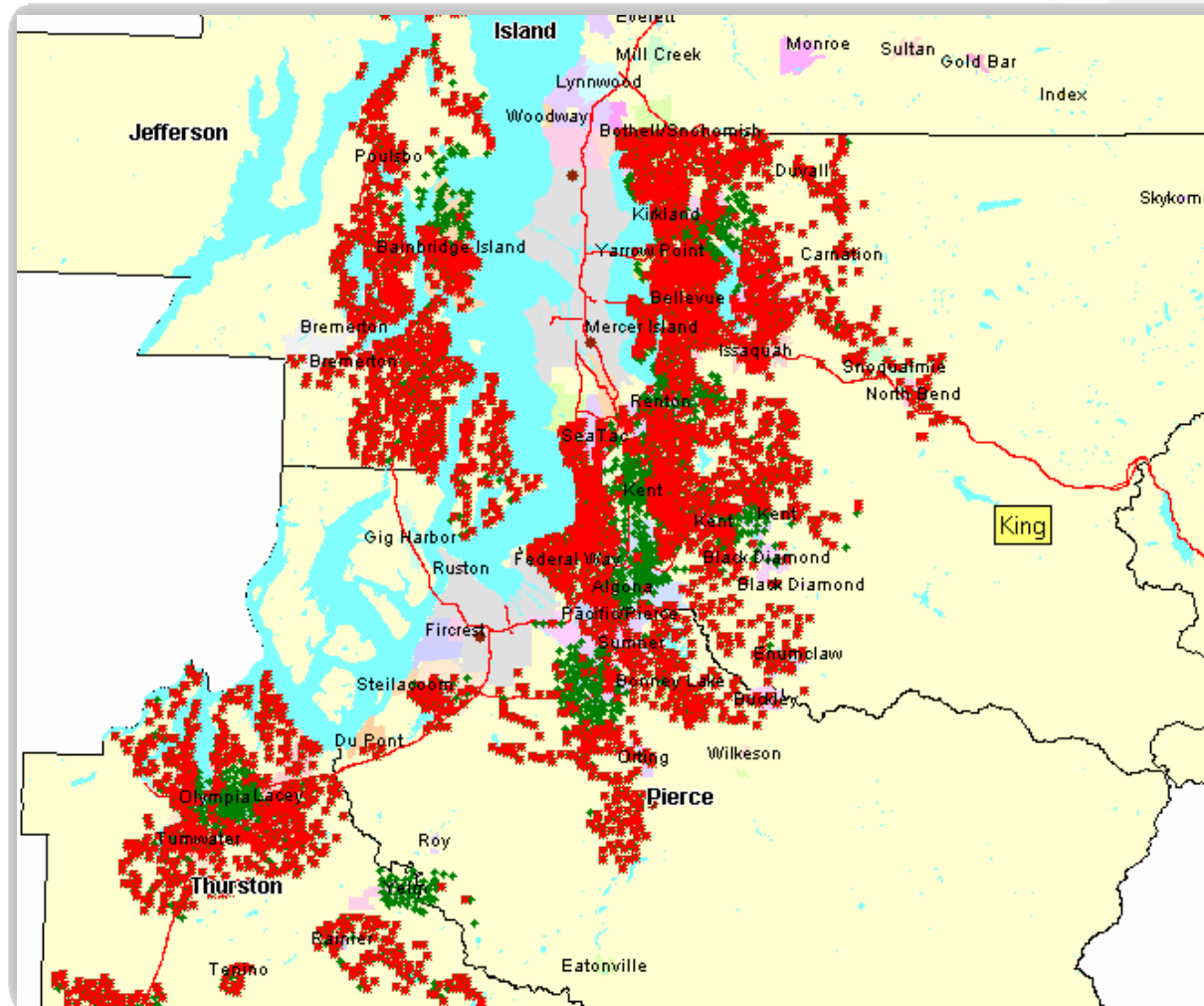
“Hanukkah Eve”



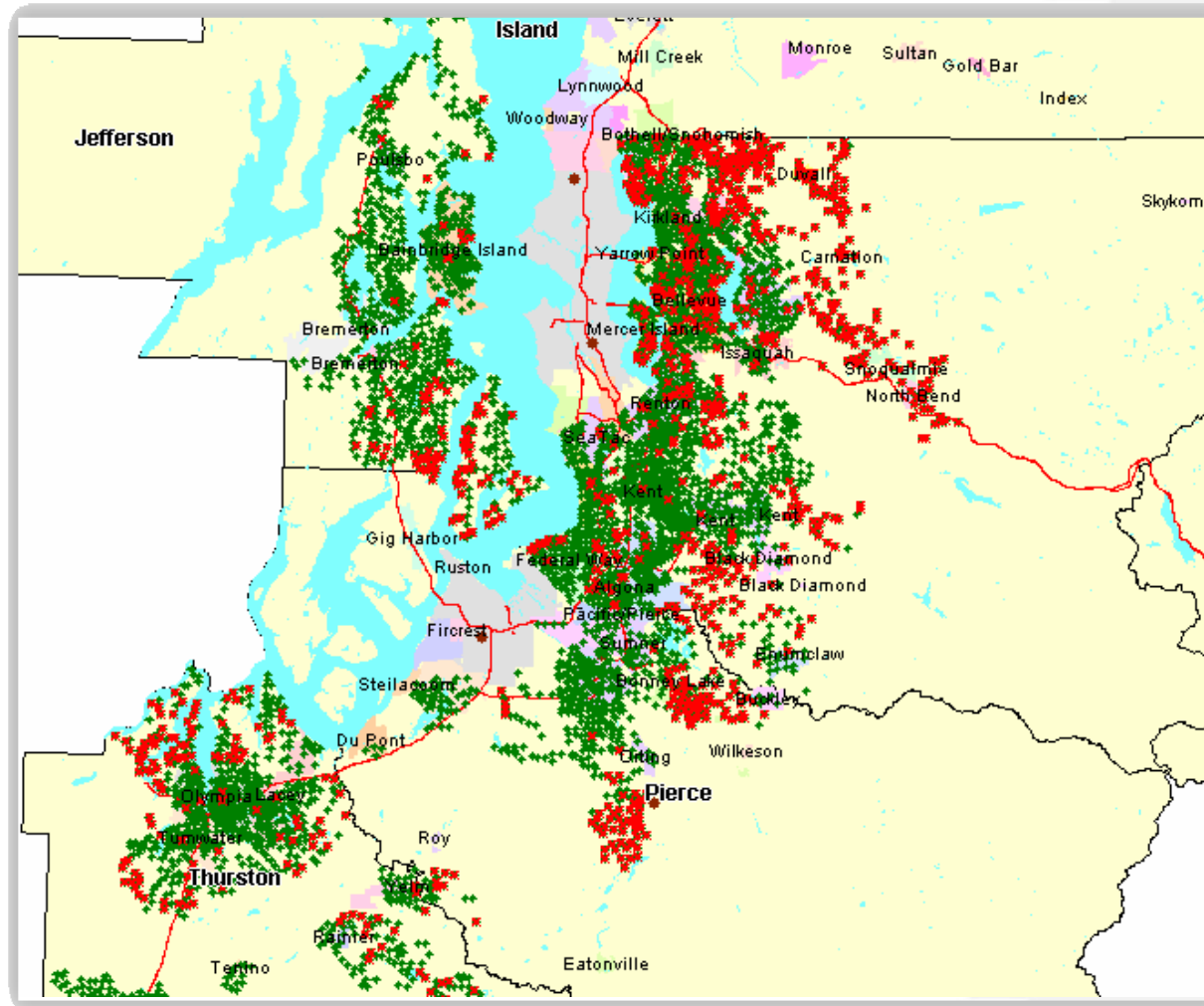
Storm's Damage Unprecedented



Dec. 15: >700,000 Customers Out

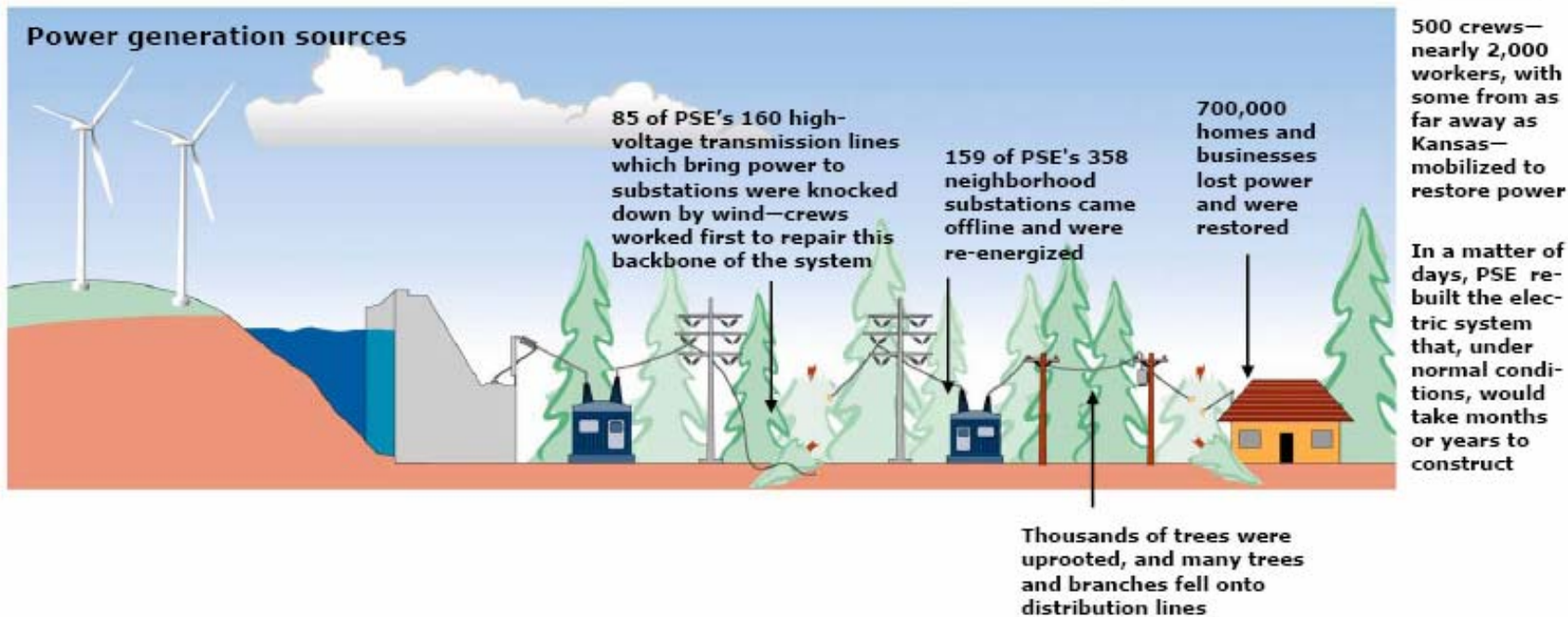


Dec. 18: ~ 500,000 Customers Restored



Storm Magnitude & Restoration Effort

Effects of severe December 2006 windstorm on Puget Sound Energy electric system





Woodinville/Duvall Road



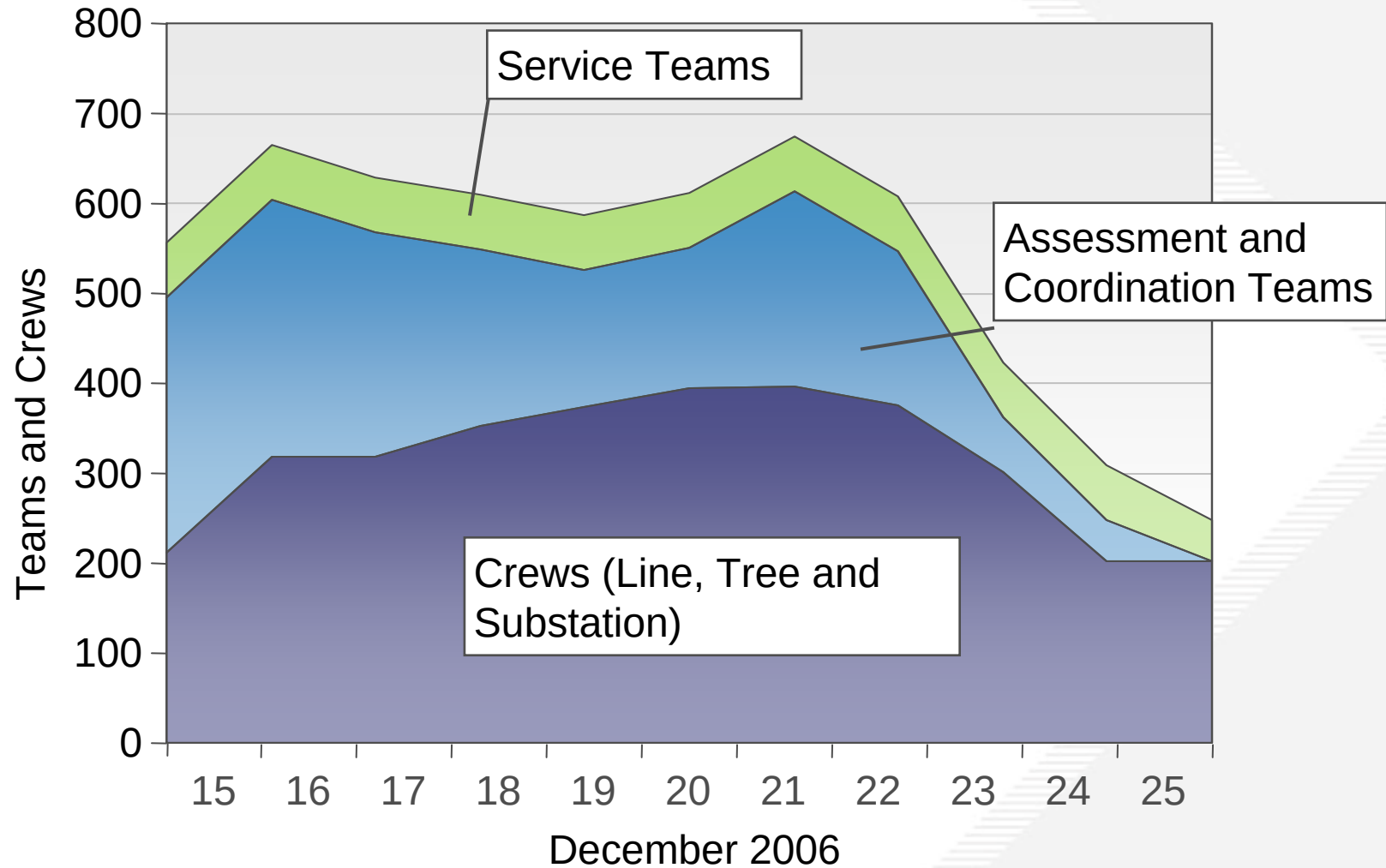
Emergency Operations Center



Customer Access Center



Team and Crew Counts





Ensuring a Safe, Reliable Infrastructure





Questions?

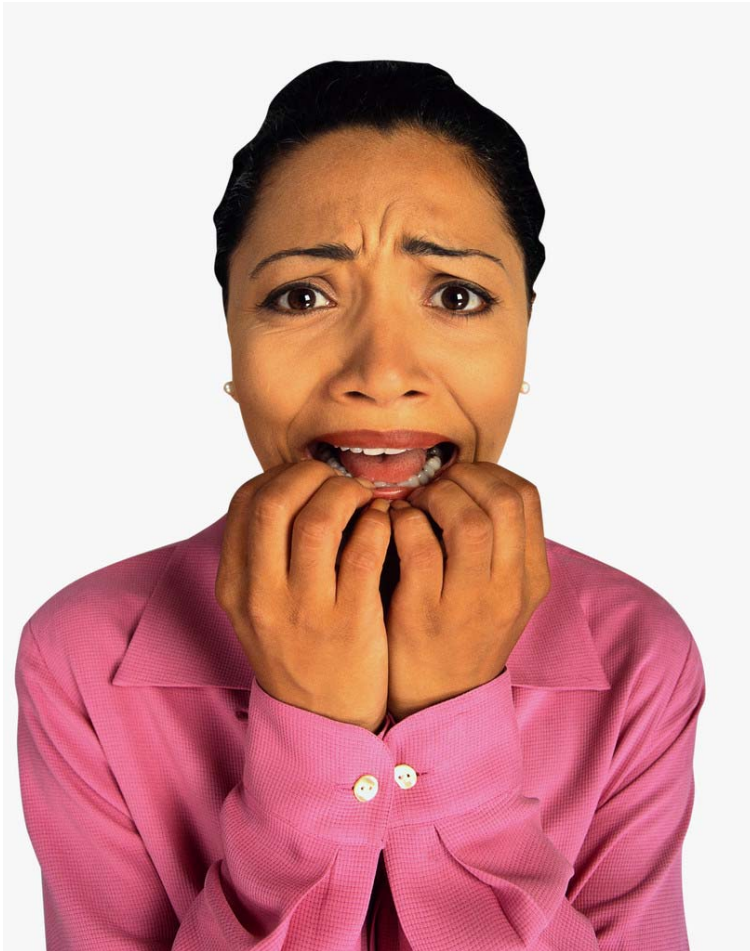
Mark Wesolowski
425-462-3887 - office
mark.wesolowski@pse.com

Dee Williamson
425-882-4432 - office
dee.williamson@pse.com

8.1 Earthquake

- Epicenter 6 miles SE of Seattle
- Major impacts from Bothell south to Olympia and from Seattle east to the summit on I-90
- Medium impact from Bothell north to Bellingham & Olympia south to Chehalis
- All power is out
- All major highways and freeways closed
- All telephone, cell, fax, emergency services radio systems out of service
- Major damage to buildings
- Sporadic fires

What do you do?



State of Washington Radio Amateur Civil Emergency Services (RACES) Plan

VI. CONCEPT OF OPERATIONS

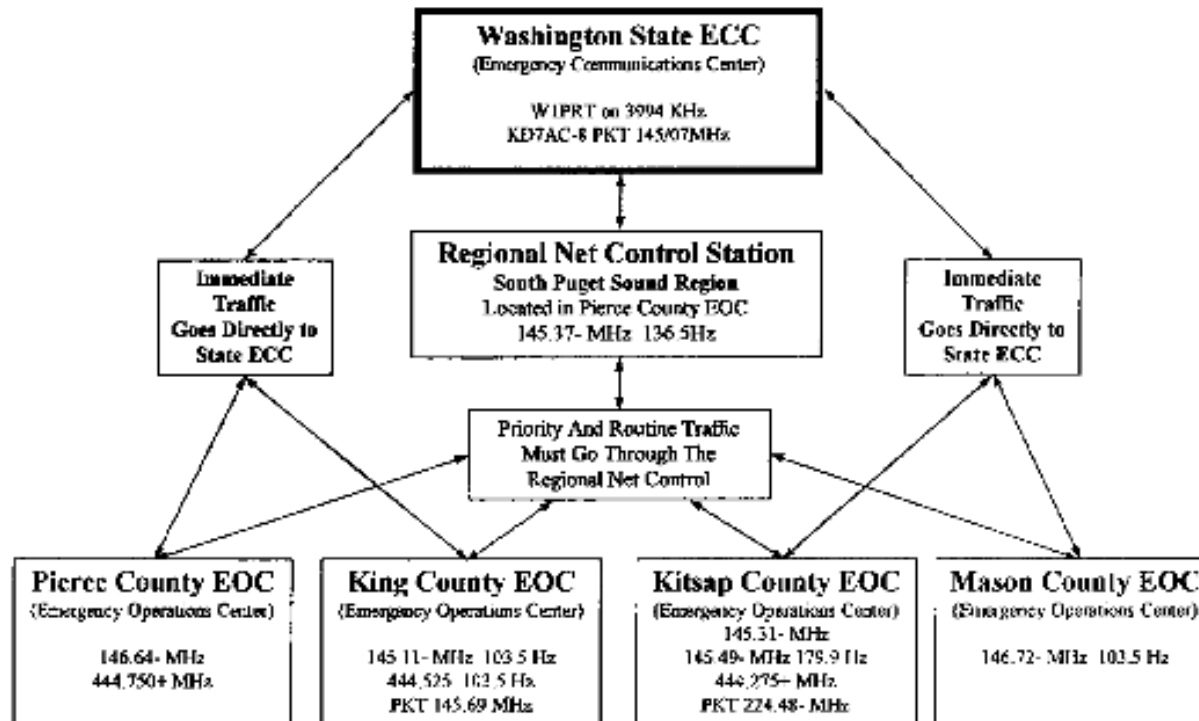
A. Should the need arise, the state's Director, Emergency Management, based on this plan, may request the use of available volunteer communications equipment and personnel.

B. The Director, through the Telecommunications and Warning Program Manager, will contact the State RACES Officer and request that the RACES organization supporting the state Emergency Operations Center (EOC) bring up communications links between needed locations.

C. Once contacted, the State RACES Officer will implement this plan in coordination with the RACES Region Coordinators and local RACES Officers.

South Sound Communications Plan & Traffic Routing

South Puget Sound Region ARES / RACES Communications Plan November 1995



Plan Text

The traffic going from any City EOC, *may* go to another City EOC, the King County Office of Emergency Management (KC OEM), the South Puget Sound Regional Net Control Station (NCS) or directly to the Washington State Emergency Communications Center (ECC). The South Puget Sound Region consists of King, Pierce, Kitsap and Mason Counties. Hopefully, some problems can be solved within this region without going to the State.

Further...

Any traffic originating from any non-City, governmental unit, in King County may not be transmitted to the Regional NCS or directly to the State ECC. It must be transmitted through the KC OEM or possibly to a City, a Fire Dispatch Center or a School Unit.

FREQUENCY PLAN Western Washington ARES® - Microsoft Internet Explorer provided by Puget Sound Energy

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Back Forward Stop Home Search Favorites Media

Address http://www.wastateares.org/freq_plan.htm Go Links

FREQUENCY PLAN

Western Washington ARES/RACES Frequency Plan

*****AMATEUR RADIO REGIONAL FREQUENCY PLAN*****

[King County](#) | **Fire Zones: 1, 3, 4, 5** | [Medical](#) | [Industrial](#) | [Kitsap County](#) | [ESCA](#)
[Snohomish County](#) | [Pierce County](#) | [Mason County](#) | [District One](#) | [Clark County](#) | [Grays Harbor County](#)
[District Two](#) | [Clallam County](#) | [Jefferson County](#) | [Cowlitz County](#) | [PACKET](#) | [Clatsop County](#) | [Columbia County, OR](#)

Last Updated: December 23, 2005

TEAM	REPEATER 1	REPEATER 2	REPEATER 3	SIMP 1	SIMP 2
King Co ARES	146.82-(103.5)				
King County EOC	145.11-(103.5)	444.525+(103.5)		144.370	146.440
Packet				145.690	
King County Police SAR	145.11-(103.5)	146.82-(103.5)	444.525+(103.5)	146.440	144.370
	444.65+(131.8)	443.70+(103.5)		145.650	446.000
Fire Zone 1					
Bellevue 911	147.10+(103.5) Check-in/Coordination	443.70+(103.5) EOC to EOC & Liaison Net	147.30+(127.3) Dispatch 146.82+(103.5) Backup	146.580	146.460
Mercer Island	147.44 Used as link to repeater 440.35+(103.5)	147.34+		146.600	
Woodinville	147.34+	442.775+(100.0)	441.100+(156.7)	147.510	

Done Internet

Questions Created

- Where are the other districts?
- Where are the cities?
- Who should I check in with and what frequencies should I monitor?
- Where can I go in one place to see what to do *easily*?

Concerns

- Information is scattered / hard to dig out (buried in documents)
- No Field Operating Guide available (quick reference to frequencies, policies, etc.)
 - ◆ Who to contact, What frequency, When appropriate, How (formal messaging?)
 - ◆ As a new AEC or group, what training do I receive?
- Information available not current
- Frequencies for contacts not verified in EOC-to-EOC drills
 - ◆ Overall plan seems general, not exercising procedures, rather just checking frequencies
 - ◆ New operators or ARES® Teams are able to participate- they don't know what to do

Where do we go from here?